

- 0095603-11104
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- a) continuous passage of the polymer solution or dispersion to an ultrafiltration unit, and mixing with retentate recycled from step d) and, optionally, essentially polymer-free aqueous medium,
 - b) separation of the mixture in the ultrafiltration unit into a permeate and a retentate,
 - c) discharge of the permeate from the process,
 - d) discharge of some of the retentate from the process; recycling the remainder of the retentate in step a),
 - e) passage of that part of the retentate discharged in d) to at least one further ultrafiltration unit, and treatment thereof by a process comprising the steps a) to d).

19. (New) The process as claimed in claim 18, which comprises a startup phase which has the following steps:

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- a) continuous passage of the polymer solution or dispersion to an ultrafiltration unit,
 - b) separation of the polymer solution or dispersion in the ultrafiltration unit into a permeate and a retentate,
 - c) discharge of the permeate from the process,
 - d) mixing of the total retentate with the polymer solution or dispersion in step a) and, optionally, with essentially polymer-free medium and passage of the mixture to the ultrafiltration unit until the desired degree of fractionation has been reached in the retentate.

20. (New) The process as claimed in claim 18, wherein the polymer solution or dispersion has a polymer content of from 3 to 30% by weight.

21. (New) The process as claimed in claim 18, wherein a retentate having a polymer content greater than 5% by weight is discharged.

22. (New) The process as claimed in claim 18, wherein from 20 to 90% by weight of the polymer used is separated off as permeate.

23. (New) The process as claimed in claim 18, wherein the ultrafiltration is carried out through membranes having a cut-off for polymers with molar masses of from at least 1000 to 500,000 or through membranes having a pore diameter of from 0.01 to 10 μm .

24. (New) The process as claimed in claim 18, wherein the membranes are used in the form of tubes, hollow fibers, plate-and-frame apparatuses, hollow fiber modules, cushion modules or spiral-bound modules.

25. (New) The process as claimed in claim 18, wherein the ultrafiltration is carried out at an inlet pressure of from 1 to 20 bar.

26. (New) The process as claimed in claim 18, wherein the ultrafiltration is carried out at a transmembrane pressure of from 0.5 to 10 bar.

27. (New) The process as claimed in claim 18, wherein the ultrafiltration is carried out at an inflow of from 0.01 to 10 m/s.

28. (New) The process as claimed in claim 18, wherein ultrafiltration units having a larger diameter or a larger channel width are used in the last stage.

29. (New) The process as claimed in claim 18, wherein the amino-containing polymers are selected from polyalkylenepolyamines, polyamidoamines, polyalkylene glycol polyamines, polyamidoamines grafted with ethyleneimine and then reacted with at least bifunctional crosslinking agents, and mixtures and copolymers thereof.